

1 **CLAIMS**

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3 1. A computer-readable medium having computer-executable  
4 instructions for performing steps comprising:

5 receiving a stream of data from a server via a network;  
6 rendering the stream of data at a first playback speed; and  
7 switching to rendering the stream of data at a second playback speed  
8 different than the first playback speed without a user-detectable break between the  
9 rendering at the first playback speed and the rendering at the second playback  
10 speed.

11  
12 2. A computer-readable medium as recited in claim 1, wherein the  
13 stream of data comprises a composite media stream including a video stream and  
14 an audio stream.

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16 3. A computer-readable medium as recited in claim 1, wherein the  
17 second playback speed is faster than the first playback speed.

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19 4. A computer-readable medium as recited in claim 1, wherein the  
20 computer-executable instructions are further for performing a step comprising  
21 receiving a user selection identifying the second playback speed, and wherein the  
22 switching comprises switching to rendering the stream of data at the second  
23 playback speed in response to the user selection.

1           5.    A computer-readable medium as recited in claim 1, wherein the  
2 receiving comprises receiving the stream of data at a rate faster than necessary in  
3 order to aggressively refill a client data buffer.  
4

5           6.    A computer-readable medium as recited in claim 1, wherein the  
6 switching comprises immediately beginning rendering the stream of data at the  
7 second playback speed as soon as a request to change to the second playback  
8 speed is received.  
9

10          7.    A computer-readable medium as recited in claim 1, wherein the  
11 computer-executable instructions are further for performing a step comprising  
12 receiving the stream of data as a plurality of data packets, and wherein each of the  
13 plurality of data packets includes a tag identifying whether it was transferred for  
14 the first playback speed or for the second playback speed.  
15

16          8.    A computer-readable medium as recited in claim 7, wherein the  
17 computer-executable instructions are further for performing a step comprising  
18 rendering the stream of data at either the first playback speed or the second  
19 playback speed based on the tags of the plurality of data packets.  
20

21          9.    A computer-readable medium as recited in claim 7, wherein the  
22 computer-executable instructions are further for performing a step comprising  
23 performing time-scale modification of the data stream in accordance with the  
24 playback speed identified by the tags of the plurality of data packets.  
25



1 providing the media content to the client at the first speed while locating a  
2 correct position in a new data stream corresponding to the media content at the  
3 second speed at which to begin transmitting the media content at the second speed;  
4 and

5 transmitting, to the client, the media content corresponding to the second  
6 speed after the correct position in the data stream is located.

7  
8 **15.** A method as recited in claim 14, wherein the transmitting the media  
9 content corresponding to the first speed and the transmitting the media content  
10 corresponding to the second speed comprise transmitting the media content to the  
11 client via a network.

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13 **16.** A method as recited in claim 14, wherein the media content includes  
14 audio data and video data.

15  
16 **17.** A method as recited in claim 14, further comprising:  
17 the client receiving the media content; and  
18 the client rendering the media content at the first speed if the media content  
19 corresponding to the first speed is received, otherwise the client rendering the  
20 media content at the second speed.

21  
22 **18.** At least one computer-readable memory containing a computer  
23 program that is executable by a processor to perform the method recited in claim  
24 14.  
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1           23.    A system as recited in claim 19, wherein the client is further to  
2 receive, as the request to change the playback speed, a user selection of the new  
3 speed.

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5           24.    A system as recited in claim 19, wherein the client is further to  
6 provide a graphical user interface via which a user can input the request to change  
7 the playback speed.

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9           25.    A system as recited in claim 19, wherein the server is to  
10 overcompensate for the new speed by sending the media stream at a rate faster  
11 than necessary in order to quickly refill a data buffer at the client.

12  
13           26.    A system as recited in claim 19, wherein the client is further to  
14 immediately beginning playing back the media stream at the new speed as soon as  
15 a request to change to the new speed is received.

16  
17           27.    A system comprising:

18           a client;

19           a server coupled to the client;

20           wherein the client is to,

21                 render a media stream at a speed at which the media stream is  
22           tagged,

23                 receive a request to change the rendering speed to a new speed, and

24                 transmit an indication of the new speed to the server; and

25           wherein the server is to,

stream the media stream to the client,  
receive the indication of the new speed from the client,  
alter the speed at which it transfers the media stream to the client,  
and  
tag portions of the media stream streamed to the client prior to the  
altering with an indication of a previous speed, and tag portions of the  
media stream streamed to the client after the altering with an indication of  
the new speed.

28. A system as recited in claim 27, wherein the server is coupled to the  
client via the Internet.

29. A system as recited in claim 27, wherein the media stream includes  
both an audio data stream and a video data stream.

30. A system as recited in claim 27, wherein the server is further to  
stream the media stream to the client as a series of data packets, each data packet  
including a tag identifying whether it corresponds to the previous speed or the new  
speed.

31. A system as recited in claim 27, wherein the server is further to  
perform time-scale modification of the media stream prior to streaming the media  
stream to the client.

1           **32.**    A system as recited in claim 27, wherein the client is further to  
2 perform time-scale modification of the media stream prior to rendering the media  
3 stream.

4  
5           **33.**    A system as recited in claim 32, wherein the client is to perform the  
6 time-scale modification to alter the speed at which the media stream is rendered  
7 based on the tags.